

REMARKS

Applicants' below signed representative would like to thank the Examiner for the telephone interview on May 21, 2003. During this interview, the 35 U.S.C. 112, second paragraph, rejections were discussed. Additionally, Applicants' representative and the Examiner discussed how claim 34 could be amended to better distinguish the claimed invention from the applied references. Further, Applicants' representative and the Examiner discussed the patentable weight that should be given certain terms.

The above Amendments and these Remarks are in reply to the Office Action mailed April 22, 2003. Claims 25-118 were pending in the Application prior to the outstanding Office Action. Claims 25-33, 41, 48-50, 57-58, 73, 78, 83, 95-98 are cancelled herein. The present Response amends claims 34, 35, 40, 59, 62, 66 and 88. Claims 34-40, 42-47, 51-56, 59-72, 74-77, 79-82, 84-94 and 99-118 remain for the Examiner's present consideration, with claims 34, 40, 59, 66 and 88 being independent claims. Applicants believe that support for the claim amendments is explicitly and/or inherently provided in the application as originally filed.

Based on the above amendments and the following remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding objections and rejections.

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I. Election/Restriction

The claims were restricted as follows:

Group I: claims 25-33, 41, 48-50, 57-58, 73, 78, 83, 95-98; and

Group II: claims 34-40; 42-47, 51-56, 59-72, 74-77, 79-82, 84-94 and 99-118.

During a telephone conference with the Examiner on April 9, 2003, Applicants' representative (Sheldon Meyer) provisionally elected Group II. Applicants are now affirming the election of Group II. Applicants have cancelled the non-elected claims without prejudice or disclaimer to re-presenting them later in this or a continuing application.

II. Claim Objections

In Section 7 of the Office Action, claim 62 was objected to because of a minor informality. Claim 62 has been amended to overcome this objection. Applicants therefore respectfully request that the objection be withdrawn.

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III. Claim Rejections - 35 U.S.C. 112

In Sections 8 and 9 of the Office Action, claims 35, 51, 53, 54, 59-72, 76, 81-82, 86-94 and 107-118 have been rejected under 35 U.S.C. 112, second paragraph.

Claim 35 was rejected due to the use of "said electrodes," because it is unclear whether Applicants meant to indicate the first, second, or both electrodes. Claim 35 has been amended to make the claim more definite. Accordingly, Applicants respectfully request withdrawal of this rejection.

Further, it was alleged in the Office Action that claims 51, 54, 59, 61-72, 88 and 90-93 are indefinite for using the terms "removable ... electrode" and/or "liftable ... handle" in claims 51 and 53-59. The Office Action alleges that the words "removable" and "liftable" do not give a positive description of the electrode and the handle, since they indicate that the electrode may or may not be removed and the handle may or may not be lifted. Clarification of the structures was requested. Applicants respectfully traverse this rejection.

Claim 51 states that "said second particle collector electrode is removable, and said housing has a top and wherein said second particle collector electrode is removable from said housing through said top." Claim 54 states that "said second particle collector electrode is removable, and said housing has a top and wherein said second particle collector electrode is removable from said housing through said top." Claim 59 states that "said second removable electrode is removable through said top of said housing." Claim 88 includes "an ion generating unit positioned in said housing, said ion generating unit having a first emitter electrode and a second removable collector electrode." Applicants believe that the term

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“removable” in claims 51, 54, 59 and 88, as well as the claims that depend therefrom, clearly means that the second particle collector electrode (which is normally within the housing) *is* removable through the top of the housing, to allow for cleaning of the electrode.

Claim 62 states that “a user-liftable handle is attached to the second removable electrode and said user-liftable handle extends from the top of said housing.” Claim 88 includes “a user-liftable handle secured to the electrodes and located on the top of said housing, said user-liftable handle can lift said second removable collector electrode from said housing.” Applicants believe that it is clear that the term “liftable” in claims 62 and 88 clearly means that the handle *is* capable of being lifted by a user.

Further, following the telephone interview on May 21, 2003, the Examiner called Applicants’ representative and left a telephone message indicating that the term “removable” and also the term “returnable” (used in the claims as amended) are acceptable.

Based on the above remarks, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. 112, second paragraph.

IV. Double Patenting

In Section 11 of the Office Action, claims 34-40, 42-47, 51-56, 59-72, 74-77, 79-82, 84-94 and 99-118 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 47-62 of U.S. Patent Application No. 09/730,499.

Further, in Section 12 of the Office Action, claims 34-40, 42-47, 51-56, 59-72, 74-77, 79-82, 84-94 and 99-118 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-20 of U.S. Patent No. 6,176,977.

Additionally, in Section 13 of the Office Action, claims 34-40, 42-47, 51-56, 59-72, 74-77, 79-82, 84-94 and 99-118 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 and 16-19 of U.S. Patent No. 6,350,417.

Applicants make no admission that they agree with the above listed double patenting rejections. However, to expedite issuance of a patent, Applicants are timely filing a Terminal Disclaimer herewith.

V. Claim Rejections - 35 U.S.C. 102(e)

In Section 15 of the Office Action, claims 34-40, 44-47, 51-56, 59-72, 74-77, 88-93 and 99-118 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent No. 5,975,090 to Taylor et al. The '090 patent was filed on September 29, 1998, naming Charles E. Taylor and Shek Fai Lau. The present application, which also names Charles E. Taylor and Shek Fai Lau as inventors was filed on December 31, 2001, and is a continuation of U.S. Patent Application No. 09/730,471 filed December 5, 2000, which is a continuation of U.S. Patent Application No. 09/186,471 filed November 5, 1998 (now U.S. Patent No. 6,176,977).

35 U.S.C. 102(e) states that "A person shall be entitled to a patent unless — (e) the invention was

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described in — (1) an application for patent, published under section 122(b), *by another* filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent *by another* filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the inter-national application designated the United States and was published under Article 21(2) of such treaty in the English language.” (Emphasis added.)

Since the same inventors are named in the present application and in the ‘090 patent, the presently claimed invention was clearly not filed “by another,” which is required in order for a claim to be anticipated under 35 U.S.C. 102(e). Accordingly, Applicants respectfully request that the 35 U.S.C. 102(e) rejection be withdrawn.

VI. Claim Rejections under 35 U.S.C. 102(b)

In Section 17 of the Office Action, claims 59 and 66 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 4,253,852 to Adams. Additionally, in Section 18 of the Office Action, claims 59 and 66 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 4,772,297 to Anzia. Further, in sections 17 and 18 of the Office Action, it was asserted that the word “removable” does not positively recite the limitation following, and thus that the limitation

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would have no patentable weight. During the telephone interview with the Examiner on May 21, 2003, Applicants' representative generally explained that the term "removable" was used to explain the structural relationship between electrodes and the housing. Following the interview, the Examiner called Applicants' representative and left a voice message indicating that the term "removable," as well as "returnable" would be acceptable. Applicants' representative also interpreted this as meaning that these terms will be give patentable weight.

Claim 59, as amended, includes the features that "said second removable electrode is removable through said top of said housing and returnable through said top of said housing such that gravity will assist with return of the second electrode.

Claim 66, as amended, includes the features that "said second removable electrode is vertically removable from said housing for cleaning, and ... said second electrode is vertically returnable to said housing such that gravity will assist with return of the second electrode."

During the telephone interview of May 21, 2003, Applicants' representative (while discussing claim 34) explained may advantages of having of an electrode being removable through a top of a housing, or vertically from a housing. Some of these advantages are reiterated below.

For example, the top surface or portion of a housing is more easily accessible to a user than a side surface or a bottom surface, especially if the system is resting on the floor. In other words, the amount a user has to bend down and/or bend over, to access the top surface (to remove an electrode) is significantly less than if the electrode was removable through the side.

Another inherent advantage, which is now specifically recited in the claims, is that return of the

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electrode back into the housing is assisted by gravity when removal and return are through the top surface of the housing. In other words, by providing for removal and return through the top surface, it is much easier to return the electrode to its correct resting position in the housing.

In contrast, when returning the cartridge 40 of Adams through the side of the housing 2, there is friction to overcome. Additionally, it would be more difficult to know when the cartridge 40 of Adams was properly returned to its proper position because gravity does not assist with the replacement of the cartridge 40 in the housing 2. Further, if the housing 2 of Adams were resting on the floor, a user would have to bend down, bend over and/or get down on his/her knees to remove, clean and replace the cartridge. However, there is no suggesting or motivation mentioned in Adams for altering how cartridge 40 can be removed and replaced.

With regards to Anzai, it appears that the entire cabinet A, or at least the side portion thereof, must be removed before a user would have access to the dust collection section F. The dust collection section F would then need to be removed through the side of the cabinet A. Then the filter unit 41 would have to be removed from the frame 10, before the minus electrode unit 30 can be accessed and removed for cleaning. Replacement of the electrode unit 30 would require placement back into the frame 10, covering the frame with the filter 41, return of the dust collection section F through the side of the unit, and then replacement or closure of the cabinet A. This is much less convenient and user friendly than the claimed invention. Additionally, it would be much more difficult to know when the system of Anzai is returned to its proper operating configuration following cleaning because Anzai does not take advantage of gravity to assist with proper return. Further, if the housing unit of Anzai were resting on the floor, a user would have

to bend down, bend over and/or get down on his/her knees to remove, clean and replace an electrode. There is not suggestion or motivation mentioned in Anzai for how to alter the removal and replacement of electrode unit 30.

For at least the above reasons, Applicants believe that independent claims 59 and 66 should be allowable. Accordingly, Applicant respectfully request the withdrawal of the 35 U.S.C. 102(b) rejection of claims 59 and 66.

Claims 81 and 86 depend from and add additional features to claim 59. Claims 82, 87 and 111-114 depend from and add additional features to claim 66. Applicants assert that these claims are patentable for at least the reasons discussed above with regards to claims 59 and 66, and for the features that they add.

VII. Claim Rejections under 35 U.S.C. 103(a)

In Section 20 of the Office Action, claims 42-43, 72-82, 84-87 and 94 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Taylor as applied to claims 34, 40, 59, 66 and 88 alone, or further in view of U.S. Patent No. 5,314,838 to Thompson. As discussed above in section VI of this Response, Taylor is not available as a 102(e) reference, and thus, is not available as a 103(a) reference. Accordingly, Applicants respectfully request that this 103(a) rejection, based on Taylor alone, or Taylor in view of Thompson, be withdrawn.

In Section 21 of the Office Action, claims 34-38, 40, 44-47, 51-56, 60-65, 67-72, 74-77, 84-88 and 90-94 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 4,253,852 to Adams. In Section 22 of the Office Action, claims 42-43 and 79-82 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Adams in view of Thompson. In Section 23 of the Office Action, claims 99-118 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Adams in view of U.S. Patent No. 4,789,801 to Lee.

Claim 34, as amended, includes the features that “wherein said second particle collector electrode is a hollow electrode that is vertically removable from the housing through an opening in an upper portion of said housing to thereby allow an exposed surface of said second electrode to be cleaned, and is vertically returnable to the housing through the opening in the upper portion of said housing such that gravity will assist with return of the second electrode.”

Claim 40, as amended, includes the features that “wherein said second hollow U-shaped electrode is vertically removable from the housing through an opening in an upper portion of said housing to thereby allow an exposed surface of said second electrode to be cleaned, and is vertically returnable to the housing through the opening in the upper portion of the housing such that gravity will assist with return of the second electrode .”

Claim 88, as amended includes the features that “said second removable collector electrode is elongate along the direction of elongation of said housing and is removable through the top of said housing, said second removable collector electrode further returnable through the top of said housing such that gravity will assist with return of the second removable collector electrode.”

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For reasons similar to those discussed above with respect to claims 59 and 66, Applicants assert that claims 34, 40 and 88, as well as their respective dependent claims, are patentable over Adams. Further, Applicants assert that neither Thompson nor Lee disclose the deficiencies of Adams. Accordingly, applicants respectfully request that the 103(a) rejections be withdrawn, and that claims 34, 40 and 88, as well as their respective dependent claims, be allowed.

VIII. Conclusion

In light of the above, it is respectfully requested that all outstanding rejection and objections be reconsidered and withdrawn. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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